



**CLAIMS EVAL**

*Utilization Review and  
Peer Review Services*

**DATE OF REVIEW: 3-4-11 (AMENDED 3/7/11)**

**IRO CASE #:**

**DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE**

Lumbar Discogram with CT Scan @L2-3, L3-4 (No CPT Code Given)

**A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION**

American Board of Neurological Surgery

**REVIEW OUTCOME**

Upon independent review the reviewer finds that the previous adverse determination/adverse determinations should be:

- Upheld (Agree)
- Overturned (Disagree)
- Partially Overturned (Agree in part/Disagree in part)

Provide a description of the review outcome that clearly states whether or not medical necessity exists for each of the health care services in dispute.

## **INFORMATION PROVIDED TO THE IRO FOR REVIEW**

- 7-6-10 MRI of the lumbar spine.
- 7-15-10 X-rays of the lumbar spine.
- MD., office visits on 8-5-10, 9-30-10, 11-11-10, 12-9-10, and 12-27-10.
- 9-1-10 MD., performed a lumbar epidural steroid injection.
- 10-29-10 Lumbar myelogram performed by Dr..
- 10-29-10 CT scan post myelogram.
- 11-23-10 Utilization Review performed by MD.
- 1-10-11 Utilization Review performed by MD.

## **PATIENT CLINICAL HISTORY [SUMMARY]:**

7-6-10 MRI of the lumbar spine showed minimal decreased signal at L5-S1 with mild narrowing and a decrease in signal but no bulging. The remaining levels are unremarkable. Normal canal and contents.

7-15-10 X-rays of the lumbar spine showed degenerative disc disease at L5-S1 level with post surgical changes. Posteriorly at L4-L5 and L5-S1 levels.

8-5-10 MD., the claimant is a man from who was injured while working for on xx/xx when he was driving 'through some cattle guards and oil leases hauling disposal water on a very rough road and was bouncing around quite a bit, sustaining an injury to his low back. He has had severe lumbosacral pain since that time. He also has radicular pain in both hips and legs, down into the heels, with numbness, dysesthesias, and a feeling of weakness. The legs are involved equally. He has not gotten any better since the injury. No physical therapy or steroid injections have been done. He has been on Hydrocodone, Aleve, and Tylenol. He has had to limit his activities. He has not been able to return to work. In 1991, he had L4 through S1 decompression and fusion in and eventually recovered from that and was able to return to work with no significant back pain until this injury. Lumbar MR, scan in Lubbock shows decreased signal at L5-S1 with sonic narrowing. There is no major stenosis. There are also some changes at the L4-5 level with foraminal narrowing bilaterally with borderline canal stenosis. He takes no other medications. On examination, he is 6'1" in height and weighs 169 pounds. He has a well-healed long, linear lumbar incision and also a right posteromedial iliac crest incision for graft. There is paralumbar muscular tightness. He has some loss of lumbar lordosis. He walks with a. flexed posture at the low back. There is decreased mobility of the low back in all directions. There is tenderness over both sciatic outlets. Straight leg

raising bilaterally at between 45 and 60 degrees causes lumbosacral pain and posterior thigh pain. There is no pain with hip rotation. Pedal pulses are good. Deep tendon reflexes arc 1+ in the knees and trace in the ankles. He has no pathologic reflexes. He has no muscular atrophy or fasciculations. He has a little difficult toe standing and heel standing. He walks slowly with a slightly wide-based gait. He has a rather severe lumbosacral strain with evidence of lumbar disk pathology and radiculopathies with abnormal MR scan. Treatment options were discussed with him. He refilled his Hydrocodone 7.5 mg and he will also continue with either ibuprofen or naproxen. He is not ready to return to work. He is a good candidate for physical therapy and an epidural Depo-Medrol injection. He will be followed.

9-1-10 MD., performed a lumbar epidural steroid injection.

9-30-10 MD., the claimant did not get any benefit from a lumbar epidural Depo-Medrol injection that was done one month ago. Also, he is not getting any help from extensive physical therapy. He continues to have severe lumbar pain and bilateral radiating hip and leg pain. Lumbar MR Scan was abnormal. He has had previous surgery. He tells me that a Dr. recommended a myelogram and he certainly agreed with that. He will start the approval process for a, lumbar myelogram and CT scan. He will be seen in follow-up. He did give him a prescription for Hydrocodone 7.5 mg and Motrin 800 mg b.i.d.

10-29-10 Lumbar myelogram performed by Dr..

10-29-10 CT scan post myelogram showed no evidence of acute radiographic abnormality.

11-11-10 MD., the claimant was seen in follow-up in the office today. Myelogram and CT scan show central and bilateral stenosis and disk protrusion at L3-4. He is no better. It has now been almost five months since his injury. He is unable to work. He takes Hydrocodone 7.5 mg and Motrin. He walks with a flexed posture at the low back. He has had previous fusion from L4 to the sacrum. He is an excellent candidate for L2-3 and L3-4 diskography to be sure of the pain generator. He will start the approval process.

11-23-10 Utilization Review performed by MD., noted this is a review for medical necessity of a lumbar discogram at L2-3 and L3-4 with CT scan. The latest medical reports did not contain any physical examination to the lumbar spine to support the medical necessity of the request. Per 8/5/10 medical report, the patient was noted to have decreased mobility of the low back in all direction with tenderness over both sciatic outlets, SLR test was positive at 45 to 60 degrees, and decreased DTR's in the knees and trace in the ankles. The imaging studies were requested to be sure of the pain generator. Evidence based guidelines used for this case do not consistently support the requested procedure as a diagnostic tool or routine pre-operative screening. If this procedure is to be done anyway, there was no documentation of the reported physical therapy that has been rendered to the patient. A psychological evaluation clearing the patient for the discogram was not presented. There was also no documentation in the

clinical records of red flag conditions for which a CT scan of the lumbar spine is indicated. As such, the appropriateness, medical necessity, and anticipated benefits of these requested procedures are not sufficiently substantiated. Determination: This request is not certified.

12-9-10 MD., the claimant had denial of his much-needed L2-3 and L3-4 diskography. This man is now six months post-injury and he is getting worse with increasingly severe mid-lumbar pain with bilateral radicular hip and leg pain with numbness, dysesthesias, and weakness in his legs. He is unable to work. He continues to require Hydrocodone and Motrin. He walks with a flexed posture at the low back. His studies have been abnormal. Diskography is indicated to be sure of the pain generator and to see if this man indeed does need surgery or will need some other form of treatment. He will appeal the denial. He did refill his Hydrocodone 7.5 mg and Motrin.

12-27-10 MD., the claimant has severe post-traumatic lumbar disk pathology with abnormal diagnostic studies, mainly showing problems at L2-3 and L3-4, with disk protrusion. The only preexisting condition was the fact that in 1991 he had an L4 through S1 decompression and fusion in Lubbock and he recovered from that and was able to return to full-time work with no problems until the injury of xx/xx/xx. Any pre-existing condition that he had was aggravated, enhanced, and accelerated by the injury in xx. The injury is a definite cause of his current condition and he needs further diagnostic studies to specifically include diskography at L2-3 and at L3-4 to be sure of the pain generator prior to making a final decision regarding surgery. He has not reached maximum medical improvement, as he continues to have severe lumbar pain with bilateral hip and leg pain, gradually getting worse. He is unable to work. He definitely needs lumbar digkography and may need surgery.

1-10-11 Utilization Review performed by MD., noted records indicate that there was an adverse determination of a previous review. In acknowledgement of the previous non-certification due to lack of documentation of consistent evidence based guidelines support, there is now documentation that the patient sustained injury from a motor vehicular accident in xx/xx/xx. The patient was last seen on 12/9/10 and showed that the patient has increasing severe mid-lumbar pain with bilateral radicular hip and leg pain accompanied by numbness, dysesthesias, and weakness in the legs. This procedure was requested to determine the pain generator. MRI of the lumbar spine performed on 2/7/09 showed L4-5 with mild diffuse circumferential disc bulge and there is loss of disc space at the L5-S1 with mild diffuse disc bulge. There is also prior diskectomy and laminectomy at this level. Treatment has included medication, ESI, and physical therapy. However, evidence based guidelines do not consistently support discography in the evaluation/management of low back injuries. Therefore, this request is not substantiated at this time. Based on the clinical information submitted for this review and using the evidence-based, the request for a lumbar discogram with CT scan at L2-3, L3-4 (with dates of service 11-23-10 to 12-23-10) is non-certified.

**ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION.**

MEDICAL RECORDS DO NOT SHOW CHANGES IN THE CLAIMANT'S CLINICAL STATUS. THE MYELOGRAM AND POST CT SCAN DO NOT SHOW ANY FINDINGS THAT WOULD SUGGEST STRUCTURAL PATHOLOGY THAT WOULD REQUIRE SURGICAL INTERVENTION. ADDITIONALLY, ODG REFLECTS THAT THE CONCLUSIONS OF RECENT, HIGH QUALITY STUDIES ON DISCOGRAPHY HAVE SIGNIFICANTLY QUESTIONED THE USE OF DISCOGRAPHY RESULTS AS A PREOPERATIVE INDICATION FOR EITHER IDET OR SPINAL FUSION. THEREFORE, THE REQUEST FOR LUMBAR DISCOGRAM WITH CT SCAN @ L2-3, L3-4 IS NOT REASONABLE OR MEDICALLY INDICATED.

**ODG-TWC, last update 2-17-11 Occupational Disorders of the Low Back –**

**Discogram:** Not recommended. In the past, discography has been used as part of the pre-operative evaluation of patients for consideration of surgical intervention for lower back pain. However, the conclusions of recent, high quality studies on discography have significantly questioned the use of discography results as a preoperative indication for either IDET or spinal fusion. These studies have suggested that reproduction of the patient's specific back complaints on injection of one or more discs (concordance of symptoms) is of limited diagnostic value. (Pain production was found to be common in non-back pain patients, pain reproduction was found to be inaccurate in many patients with chronic back pain and abnormal psychosocial testing, and in this latter patient type, the test itself was sometimes found to produce significant symptoms in non-back pain controls more than a year after testing.) Also, the findings of discography have not been shown to consistently correlate well with the finding of a High Intensity Zone (HIZ) on MRI. Discography may be justified if the decision has already been made to do a spinal fusion, and a negative discogram could rule out the need for fusion (but a positive discogram in itself would not allow fusion). (Carragee-Spine, 2000) (Carragee2-Spine, 2000) (Carragee3-Spine, 2000) (Carragee4-Spine, 2000) (Bigos, 1999) (ACR, 2000) (Resnick, 2002) (Madan, 2002) (Carragee-Spine, 2004) (Carragee2, 2004) (Maghout-Juratli, 2006) (Pneumaticos, 2006) (Airaksinen, 2006) (Manchikanti, 2009) Discography may be supported if the decision has already been made to do a spinal fusion, and a negative discogram could rule out the need for fusion on that disc (but a positive discogram in itself would not justify fusion). Discography may help distinguish asymptomatic discs among morphologically abnormal discs in patients without psychosocial issues. Precise prospective categorization of discographic diagnoses may predict outcomes from treatment, surgical or otherwise. (Derby, 2005) (Derby2, 2005) (Derby, 1999) Positive discography was not highly predictive in identifying outcomes from spinal fusion. A recent study found only a 27% success from spinal fusion in patients with low back pain and a positive single-level low-pressure provocative discogram, versus a 72% success in patients having a well-accepted single-level lumbar pathology of unstable spondylolisthesis. (Carragee, 2006) The prevalence of positive discogram may be increased in subjects with chronic low back pain who have had prior surgery at the level tested for lumbar disc herniation. (Heggeness, 1997) Invasive diagnostics such as provocative discography have not been proven to be accurate for diagnosing various spinal conditions, and their ability to effectively guide therapeutic choices and improve ultimate patient outcomes is uncertain. (Chou, 2008)

Although discography, especially combined with CT scanning, may be more accurate than other radiologic studies in detecting degenerative disc disease, its ability to improve surgical outcomes has yet to be proven. It is routinely used before IDET, yet only occasionally used before spinal fusion. (Cohen, 2005) Provocative discography is not recommended because its diagnostic accuracy remains uncertain, false-positives can occur in persons without low back pain, and its use has not been shown to improve clinical outcomes. (Chou2, 2009) This recent RCT concluded that, compared with discography, injection of a small amount of bupivacaine into the painful disc was a better tool for the diagnosis of discogenic LBP. (Ohtori, 2009) Discography may cause disc degeneration. Even modern discography techniques using small gauge needle and limited pressurization resulted in accelerated disc degeneration (35% in the discography group compared to 14% in the control group), disc herniation, loss of disc height and signal and the development of reactive endplate changes compared to match-controls. These findings are of concern for several reasons. Discography as a diagnostic test is controversial and in view of these findings the utility of this test should be reviewed. Furthermore, discography in current practice will often include injecting discs with a low probability of being symptomatic in an effort to validate other disc injections, a so-called control disc. Although this strategy has never been confirmed to increase test validity or utility, injecting normal discs even with small gauge needles appears to increase the rate of degeneration in these discs over time. The phenomenon of accelerated adjacent segment degeneration adjacent to fusion levels may be, in part, explained by previous disc puncture if discography was used in segments adjacent to the fusion. Similarly, intradiscal therapeutic strategies (injecting steroids, sclerosing agents, growth factors, etc.) have been proposed as a method to treat, arrest or prevent symptomatic disc disease. This study suggests that the injection procedure itself is not completely innocuous and a recalculation of these demonstrated risks versus hypothetical benefits should be considered. (Carragee, 2009) Discography involves the injection of a water-soluble imaging material directly into the nucleus pulposus of the disc. Information is then recorded about the pressure in the disc at the initiation and completion of injection, about the amount of dye accepted, about the configuration and distribution of the dye in the disc, about the quality and intensity of the patient's pain experience and about the pressure at which that pain experience is produced. Both routine x-ray imaging during the injection and post-injection CT examination of the injected discs are usually performed as part of the study. There are two diagnostic objectives: (1) to evaluate radiographically the extent of disc damage on discogram and (2) to characterize the pain response (if any) on disc injection to see if it compares with the typical pain symptoms the patient has been experiencing. Criteria exist to grade the degree of disc degeneration from none (normal disc) to severe. A symptomatic degenerative disc is considered one that disperses injected contrast in an abnormal, degenerative pattern, extending to the outer margins of the annulus and at the same time reproduces the patient's lower back complaints (concordance) at a low injection pressure. Discography is not a sensitive test for radiculopathy and has no role in its confirmation. It is, rather, a confirmatory test in the workup of axial back pain and its validity is intimately tied to its indications and performance. As stated, it is the end of a diagnostic workup in a patient who has failed all reasonable conservative care and remains highly symptomatic. Its validity is enhanced (and only achieves potential meaningfulness) in the context of an

MRI showing both dark discs and bright, normal discs -- both of which need testing as an internal validity measure. And the discogram needs to be performed according to contemporary diagnostic criteria -- namely, a positive response should be low pressure, concordant at equal to or greater than a VAS of 7/10 and demonstrate degenerative changes (dark disc) on MRI and the discogram with negative findings of at least one normal disc on MRI and discogram. See also Functional anesthetic discography (FAD).

**Discography is Not Recommended in ODG.**

**Patient selection criteria for Discography if provider & payor agree to perform anyway:**

- o Back pain of at least 3 months duration
- o Failure of recommended conservative treatment including active physical therapy
- o An MRI demonstrating one or more degenerated discs as well as one or more normal appearing discs to allow for an internal control injection (injection of a normal disc to validate the procedure by a lack of a pain response to that injection)
- o Satisfactory results from detailed psychosocial assessment (discography in subjects with emotional and chronic pain problems has been linked to reports of significant back pain for prolonged periods after injection, and therefore should be avoided)
- o Intended as a screen for surgery, i.e., the surgeon feels that lumbar spine fusion is appropriate but is looking for this to determine if it is not indicated (although discography is not highly predictive) (Carragee, 2006) NOTE: In a situation where the selection criteria and other surgical indications for fusion are conditionally met, discography can be considered in preparation for the surgical procedure. However, all of the qualifying conditions must be met prior to proceeding to discography as discography should be viewed as a non-diagnostic but confirmatory study for selecting operative levels for the proposed surgical procedure. Discography should not be ordered for a patient who does not meet surgical criteria.
- o Briefed on potential risks and benefits from discography and surgery
- o Single level testing (with control) (Colorado, 2001)
- o Due to high rates of positive discogram after surgery for lumbar disc herniation, this should be potential reason for non-certification

**A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION:**

- ACOEM- AMERICAN COLLEGE OF OCCUPATIONAL & ENVIRONMENTAL MEDICINE UM KNOWLEDGEBASE
- AHCPR- AGENCY FOR HEALTHCARE RESEARCH & QUALITY GUIDELINES
- DWC- DIVISION OF WORKERS COMPENSATION POLICIES OR GUIDELINES
- EUROPEAN GUIDELINES FOR MANAGEMENT OF CHRONIC LOW BACK PAIN

- INTERQUAL CRITERIA
- MEDICAL JUDGEMENT, CLINICAL EXPERIENCE AND EXPERTISE IN ACCORDANCE WITH ACCEPTED MEDICAL STANDARDS
- MERCY CENTER CONSENSUS CONFERENCE GUIDELINES
- MILLIMAN CARE GUIDELINES
- ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES
- PRESSLEY REED, THE MEDICAL DISABILITY ADVISOR
- TEXAS GUIDELINES FOR CHIROPRACTIC QUALITY ASSURANCE & PRACTICE PARAMETERS
- TEXAS TACADA GUIDELINES
- TMF SCREENING CRITERIA MANUAL
- PEER REVIEWED NATIONALLY ACCEPTED MEDICAL LITERATURE (PROVIDE A DESCRIPTION)
- OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME FOCUSED GUIDELINES (PROVIDE A DESCRIPTION)